

Nepal Algebra Project(NAP)
Central Department of Mathematics
Tribhuvan University, Kirtipur, Kathmandu, Nepal
Fields and Galois Theory

Course Instructor: Prof. Nick Gill

Summary of NAP: Module 3, Lecture 3

- We defined the Galois group of a polynomial, and discussed how we can use properties of permutation groups to calculate the Galois group of a polynomial.
- We revisited Examples 3.21 and 3.22 of Milne from this perspective. In particular we noted that in both cases the Galois group was a TRANSITIVE permutation group. We gave a proof of the implication f irreducible \implies the Galois group of f is transitive.
- We briefly discussed whether the converse might be true – the exact statement will be given by Professor Waldschmidt.
- The final hour of the lecture was devoted to exercises.